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ABSTRACT

African universities have a critical role to play in the improvement of the African social fabric. There is no necessary conflict between scholarly and social concern. Tasks facing African universities involve the design and operation of the educational system, especially in regard to entrance qualifications and their relationship to academic standards. African scholars should address themselves to all problems and should have sufficient working contact with policy making and executing agencies to ensure that their academic findings will influence practical events. Since African countries are less developed economically, problems arise in relation to cost and cost effectiveness. The high cost of universities underlines the reasonableness of government concern to see that the choice of university curriculum reflects national needs, but a balance between practical requirements and those of intellectual inquiry must be maintained. (Author/KE)

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Afternoon Session

THE KEYNOTE OF THE CONFERENCE
PAPER PREPARED AND READ BY MR. R.K.A. GARDINER EXECUTIVE SECRETARY, UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA

Note : The Chairman welcomed Mr. Gardiner warmly. He pointed out that the correct timing for the Keynote was the Opening Session, but due to compelling circumstances connected with other essential engagements, Mr. Gardiner could not be with us in the morning. "We are now happy and grateful that he is with us". The Chairman gave the floor to Mr. Gardiner.

Mr. Gardiner:

"The University in Africa Today"

Introduction

I welcome the opportunity to address the Association of African Universities; and I recognize the honour thus afforded to me. I have gladly responded to the invitation mainly because the very existence of the Association which issued it bears testament to the rapidity and extent of one very important line of African advancement. In my youth, nothing was heard of fully-fledged universities, except in Egypt and South Africa; and in Africa south of the Sahara, the nearest and solitary approximation to a university was Fourah Bay College in Sierra Leone. Even in the 1940s and 1950s many of the institutions now members of the Association were then non-existent; and others were merest embryos. Today, more than 40 African universities are established; and the number of African teaching, research and administrative personnel is a measure of the creditable

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progress which has been made in recent years.

The founders of the Association have identified and emphasized two essential aspects of the University; the scope and content of its activities implied in the notion of "universitas studiorum"; and the catholicity of the university community.

This is an appropriate emphasis, and it helps to underline the particular aptness of the collective consideration of African university needs. Such collective consideration is most apposite at this time, particularly if it is accepted that African universities should be an intimate part of the African social fabric. I recognize that there is not much agreement on the directions in which African societies should evolve; and that there is much debate on the preferred means of achieving the desired evolution, but African universities are well placed to contribute much to the definition of African social goals and to the specification of means to achieve these goals. The universities are sufficiently established to be experienced, and sufficiently young to be flexible, both in ordering their own activities and in thinking about wider African problems.

In keeping with my belief that universities have a critical role to play in the improvement of the African social fabric, I propose to examine some of the more important elements in this role. In doing this, I should like to emphasize that there is no necessary conflict between scholarly and social concern. Indeed, there should be very substantial community of interest if scholars accept that the purposes of research and deep reflection should be weightier than the satisfaction of what has been called 'sinister personal pleasure', and if governments recognize that independent enquiry, fearlessly pursued, is in the long run one of the greatest strengths and most powerful guarantees an open society can possess. If scholars display a basic sense of social responsibility, critical comment on the conduct of public affairs ought always to be met by something more reasoned than force or repression. In this spirit, I should like to offer some thoughts on the university and society; on some specific tasks to which African universities ought now to be addressing themselves; and on some specific problems that are raised by consideration of university development in Africa. I have chosen to divide my

tboughts in this way for convenience of exposition; but I recognise, of course, that my topics are all inter-related.

The University and Society

A characteristic of modern societies is their interdependence. Important institutions cannot hope to conduct their affairs in a vacuum; and governments cannot be expected to remain indifferent to the impact of even ostensibly independent institutions on political and social processes. In the contemporary context, the only question worth discussing is not whether the university is part of society at large, but the respective limits of academic freedom and political interference. As a general principle, this question will lie lightly on any society which is willing to accept that the limits should be determined in such a way as to maximize opportunities for free, critical enquiry and the rational, social application of the fruits of such enquiry.

The problem of maintaining the balance between scholarly freedom and political authority which arises from the necessary involvement of the university in society is not, of course, peculiar to Africa. Indeed in some ways the problem has been manifest in its sharpest form in recent years in the so-called developed societies. An example of the magnitude and complexity that the question can attain is provided by the characteristics and recent history of the University of California. In 1962, according to its then President, the University of California had an operating budget of nearly US $500 million and carried a capital budget of a further US $100 million; and the university was "operating in over 100 locations, campuses, experimental stations, agricultural extension centres and projects abroad involving more than 50 countries, with nearly 10,000 courses in its catalogue, with almost every form of contact with nearly every industry, nearly every level of Government". In subsequent years there has been continuing and serious academic unrest; and this unrest has in turn provoked political reaction in such a way as to lead to a sharp confrontation between members of the University anr the political powers of the State. There are, no doubt, particular factors which help to

explain the California conflict — the size of the university and the political ethos of California.

There are, however, also important general elements in the origins of the conflict which would repay careful study by persons and institutions concerned with the welfare of universities and the general social good.

Among these elements are a confusion as to purpose on the part of the University itself; and an altogether too narrow view of the university on the part of political authority. The very range of the university's interests and activities makes any coherent view of its functions difficult. At the one extreme, the view that the university should be primarily concerned with the training of young persons for sober and responsible careers is at once timid and dangerous. On the other hand, unimaginative, acquiescent sobriety is incompatible with any serious intellectual adventure; and it is wrong to attempt to secure such sobriety by forceful maintenance of "law and order" and financial inducement of respectable behaviour.

Thus a lesson of the California experience is that the state ought to have as clear a view as possible of the nature and functions of the university. There is, of course, a wealth of definitions regarding the functions of a university. Its principal aim is often seen as "the preservation and transmission of man's cultural heritage"; and the university has been described as "the protecting power of all knowledge and science, of facts and principles, of enquiry and discovery, of experiment and speculation,.." Such definitions are acceptable as far as they go; but they do not go far enough being at once too general and too narrow. They fail, on the one hand, to make it clear that modern universities are rooted in the contemporary social setting which must be their concern; and, on the other hand, they fail to provide any detailed account of the diverse functions which the modern university now embraces. A more detailed definition would certainly include the transmission and extension of man's cultural and scientific heritage, as well as the need to exemplify the highest standards of intellectual integrity. It would certainly emphasize the need to conduct these tasks in an explicity social way; and would recognize that exacting professional training, if it does not by any

means exhaust the functions of the university, is at least a creditable part of the university purpose.

Universities are, of course, ancient institutions which, in the course of their long history, have exhibited continuity and change. Ages ago, mathematical developments in the Islamic world were examples of scholarly advance; and the Chinese invention of gunpowder was an instance of early technological progress. In more recent times, the advance of scholarship and scientific and technical thought has been largely determined by Western Europe; and, as Professor Kuznets has put it, "the epochal innovation that distinguishes the modern economic epoch is the extended application of science to problems of economic production". The baldness of this statement should not be allowed to obscure the complexity of the underlying process it describes. Technological and economic advances have been related to sweeping changes in the social and political framework of societies; and the consequent material capacity of the European powers made it possible for them to spread their mandate throughout the world and to dominate numerically superior communities. Spectacular material advances further encourage notions of secularism which are most graphically embodied in the view that man can, by the application of science, control nature. Some countries, in recognition of the Western-imposed standard that modern nations should be classified primarily in terms of technological capacity, have, like Japan, given emphasis in the recent development of their educational systems to technological institution.

Just as the civilization of Athens in the age of Pericles was deeply tarnished by the institution of slavery, so the recent epoch-making innovations of western Europe have been, and indeed remain, deeply compromised by the colonial experience, with its degrading racial distinctions and its economic neglect of the subject nations. As a consequence of this experience, African countries are, in world terms, very far removed from possessing the kinds of economies that "the extended application of science to the problems of economic production" has produced elsewhere. In this circumstance, with all that it means in terms of human misery, the first task of African governments must be the most rapid attainment possible of modern

economies; and the first general task which must fall on important and let us not forget, costly — institutions like universities is to assist in this attainment. Since, as European experience shows, the task involves the establishment of vigorous scientific and technological capacities, as well as the widespread adaptation of social and political institutions, it is surely an inescapable obligation that the human and enquiring intellect should play an active part in tackling it.

I am aware that there are some who, with Veblen in his **Higher Learning in America**, see idle curiosity as the only proper academic motive. I fail to see anything particularly noble in such a motive. Curiosity is indeed a basic human instinct, but it needs to be sublimated. The sort of curiosity that leads men to take an Asmodean interest in tearing off their neighbour's roofs to see what is going on beneath is reprehensible and indeed idle. Idle curiosity is, after all, what leads men to stop and watch a brawl or any fleeting diversion and it seems to me that those who would base academic activity on this trivial impulse are seriously confusing motive with method. It is surely more honourable to work at the full stretch of one's intellectual powers and integrity for social betterment, than to boast that one shares with man and beast alike a fairly common, and often frivolous, instinct to be curious.

In African conditions above all, there is ample scope for common ground between the aims of government and the claims of the academician, and if the political authority ought to respect the honest, if necessary the courageous, opinion of the scholar, the scholar ought equally to recognize that he cannot escape his social responsibilities. Even if the scholar is unwilling to acknowledge his social obligations explicitly, he cannot escape from the implications of the terrible question of the Irish poet who, in the course of an earlier tribal struggle, pondered; "Did those words of mine send forth men the English killed"; or Lord Keynes' observations that "Mad men in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back".

I do not wish, of course, to be understood as decrying any merit in intellectual curiosity. The desire for social betterment, like the

desire to cross a busy thoroughfare, has to be rationally organized; and it is important that scholars should not be easily satisfied with either a narrow range of concerns or relatively facile solutions. Indeed the challenge that now presents itself to African citizens and scholars is to develop African universities which will imitate none uncritically, but which will be designed to give distinguished service to the societies in which they are located at the same time as they preserve to the full the universal hallmarks of the university institution. Such hallmarks certainly include intellectual liveliness and stamina, and it is my strong hope that these characteristics will be very much in evidence in African universities. I am sure that common involvement in the painful, but exciting, problems of a far-reaching social transformation and a modicum of mutual understanding between state and university will mean that the more powerful and the more persistent the academic intellect, the greater the benefits to society at large.

Some Specific Tasks

Having spoken of modernity, I now wish to say that one of the most encouraging features of recent scholarship has been the light it has thrown on the African past. Hitherto, it has been thought that Chinese, Islamic and Western societies were alone in possessing the university as the apex of their civilizations. It is now known that the university existed in Africa also in the Middle Ages. 'In Timbuctu, then a city of perhaps 100,000 inhabitants, the University of Sankore was famous throughout the Arabic-speaking world for the study of law and surgery; and in a community with many doctors, judges and other learned persons, manuscripts and books were often the most valuable of merchandise'. I am aware that there are some perhaps in this audience — who would argue that there is no continuing link between the earlier achievements in Timbuctu, and the circumstances of contemporary Africa; and that, therefore, to dwell on past history like this is to indulge in useless sentimentality.

I cannot agree. It is important to recognise that one of the more disabling features of our present situation is that we have sometimes

been driven to ask whether intellectual endeavour is not alien to the nature of the African; and we have been forced to accept "the status of a native" which Franz Fanon rightly observes "is a state of nervousness induced by oppressors". It is necessary to assert that what Africans did in the past, they are capable of doing again; and it is good for the moral of our scholars to know that they work in institutions which have roots in their own culture and history. For these reasons, I think it important that critical and comprehensive study of African history should be a strong feature of African universities. I thus agree with President Nyerere; and I would certainly endorse his view that it is natural and right for our new universities to play a leading part in African historical studies because the primary interest is not really other people's desire to understand us, but our own desire to understand ourselves and our societies in order that we can build the future on firm foundations.

Reverting to more explicitly modern concerns, many studies and indeed casual inspection reveal that lack of skills is the single most important constraint on African economic advancement. Given what has been said earlier, this skills constraint is clearly something which universities ought vigorously to seek to reduce. At one — and the most obvious level, this involves the universities in the production of high level talent. The timing and pattern of the contribution that universities can make in this respect are by no means easy to determine. The importance of the contribution cannot, however, be gainsaid. It has, moreover, to be remembered that expatriates still account for a high proportion of all persons working in Africa with high level skills. In these circumstances, it is evident that increasing the stock of Africans with high level skills must rank high among the tasks now to be undertaken by African universities. The skills constraint does not refer merely to high academic qualifications. It is, in fact, to be observed at many levels; and the removal of this constraint has implications for the entire system of formal and informal education.

It is, therefore, important that universities should become involved in the design and operation of the educational system at large. In part this requires that the universities should accept the

challenge to combine realistic entrance qualifications, which will maximize higher educational opportunities, with the need to preserve academic standards, which ought to be high not in deference to any foreign judgements, but because of national integrity and needs. More generally, the universities ought to take educational planning and performance very seriously. Where skills are limited, it would be wrong to expect that Ministries of Education can alone produce viable educational plans; and where the whole public interest is involved, it would be imprudent to leave the determination of such plans to educational specialists narrowly construed.

Thus, the universities might mobilize teams of specialists drawn from different disciplines education, economics, psychology, natural, biological and computer sciences — who would analyze sets of options and formulate plans for national action. Such action might include the revision of curricula, the formulation of courses and qualifying examinations for different types and levels of institutions, and ensure that the products of the educational system at its various levels can be usefully absorbed by the economy and by society.

At the primary school level, for example, it is argued that some elements of rural science in agriculture should be introduced into the curriculum for the benefit of children who are to live in predominantly agricultural communities, but agriculture, especially when productivity is increased, is not likely to absorb all children who attend schools in rural areas. Neither is it reasonable to expect all children from these areas to take to agriculture as a vocation. There should be linkages to give children the option to advance to technical, commercial, secretarial and other courses, whether they start from rural or urban primary schools. Another aspect of this question concerns facilities for technicians to take professional courses. In Africa where people with minimum qualifications are in short supply, very few people are willing to enter specialist training courses which will limit their opportunities for advancement when professional salaries and conditions of service are higher and better than those for technical personnel. The universities should set up special entrance arrangements for mature students, including experienced technicians.

In effect, the foregoing arguments suggest that African univer-

sities should conduct serious research into African educational problems and contrive to make the results of this research widely known. There is no lack of other problems which in the development context require careful elucidation, the effect of climate and different types of soil on agricultural crops; the economic responsiveness of the peasantry; the economic implications of particular social structures and institutions; the relevance of commodity agreements to African trade problems; and the optimum strategy for the dissemination of modern technology in African conditions, to mention a few of the more obvious. Whether within the normal departmental structure, or by means of special research institutes, it is important that African sholars address themselves critically to such problems and that they have sufficient working contact with policy making and executing agencies in order to ensure that their academic findings will influence practical events.

In tackling the developmental problems of the continent, African universities will inevitably have to confront the fact that they are multi-purpose institutions; and they will necessarily therefore have to face the problem of maintaining the balance among their various pursuits worrying here about the relationship between the traditional single honours course and the manpower needs of the economy and being concerned there to ensure that research is undertaken in a way that is consistent with the requirements of general and professional education and the exacting demands of undergraduate life. African universities should also seek balance in their time perspective and in their breadth of vision. Even the most pressing contemporary problems can sometimes be greatly illuminated by an ability to take the longer view; and African scholars have perhaps a unique opportunity to contain the consequences of excessive specialization which now mark the more developed societies and to present a reasoned sketch of African possibilities.

Africa's image of herself and her ideas about other continents have been distorted by the colonial experience. Area studies of, for instance, the Arab World, the Caribbean, Asia and the Far East could therefore be given a place in the university programme. I see no conflict between a proper internationalism and natural interest in the

problems nearest to one's door. Moreover, the membership of African States in bodies like the United Nations makes it imperative that the universities should help, not only in the training of diplomats and public leaders but also in fostering a modern world outlook.

Some Specific Problems

African countries are among the least developed economically in the world. This fact raises some particular problems in connection with African universities. Not surprisingly, the most evident of these problems relate to cost and cost effectiveness. As Sir Arthur Lewis and others have pointed out, the cost of educating a student in Africa is higher than the cost of educating the same student in a European or American university. Among the reasons for this is the fact that the market for academic skills is increasingly an international one; and in order to retain African staff and attract expatriates, African universities must pay salaries which will enable them to compete with the salaries and relatively attractive conditions prevailing elsewhere. Present pressures on universities elsewhere are now such that salaries there are tending to increase at a rate which is higher than the general rate of economic progress in African countries. The real cost of university education in Africa is thus tending to rise from an already high level.

In considering the cost of university education one cannot avoid the cost of waste or drop-outs. My attention was drawn to this phenomenon forcibly by the following extract from a Ghana newspaper; "Out of 280 students presented for the degree examination in science this year only 62 passed! That is, about 21% passed the exam after at least four years of study". The case I have cited concerns a university in Ghana but some research is needed to throw light on the situation in other universities and at other levels of education in each African country. An equally important question is what use does society make of these failures or drop-outs.

In our predominantly illiterate and unskilled countries we should contrive to make use of every person who has spent even one year

in a primary school. Apart from the fact that university entry requirements are in some cases conventionally copied from metropolitan countries and unrealistic, it is shocking to think that the resources of very poor countries can be wasted on over 200 students without any tangible results. One is inclined to ask: Are these failures allowed to resit their examination without having to wait a whole year? Are there facilities for career guidance which can help these unfortunate students to choose careers for which they show an aptitude, and for which the training they have already acquired fits them? In other countries such cases often find openings in librarianship, accountancy, baking, hotel management, junior executive posts in business and industry, and teaching at various educational levels. It is also a task of universities in Africa to study this type of waste, and to help to devise service and career systems which can make use of all skills.

The high cost of African education suggests that such education requires special justification and confers special privileges which ought to carry correspondingly special responsibilities. The justification can be found in areas already discussed: basically in the need for original work on African historical and developmental problems, and in the desirability of maintaining close links between research and teaching. The proliferation of institutes of development studies notwithstanding, it is evident that the major concern of extra-African universities is the extra-African world; and a proper attention to African problems can only be achieved by African universities. This said, however, it should be remembered that in poor societies university education is a rare privilege; and that therefore African students and their mentors should consequently be imbued with a marked sense of social obligation.

The high cost of universities underlines the reasonableness of government concern to see that the choice of university curricula reflects national needs. To say this, however, is not the same as saying that governments should have the right to insist that universities should confine their attention to narrowly practical matters. It is nevertheless to say that due attention should be paid to the supply of scientists, economists, engineers, etc. I do not see any objection to a government scholarship policy which gives preference to candidates

in these fields and less consideration to those who select liberal arts, law, and sociology. Here as elsewhere, the important problem does not lie in any intractable conflict between the universities and the political authorities, but in preserving the balance between practical requirements and those of intellectual enquiry.

That there is a strong case for having African universities does not mean that all African universities should be established as highly independent and individualistic institutions. On the other hand, it should be born in mind that rigid and unthinking demands to avoid duplication in academic work can be seriously self-defeating and dangerous. Professor Galbraith has put a label on modern society and called it "Industrial Society", but the pivot of an industrial society is knowledge and that is why there is a growing tendency to describe a modern society as a "knowledge society". For this reason, it can be accepted that every African State however small will seek to have its own university college or "knowledge centre". The importance of having such a centre is further emphasized by the trend which has resulted in America of having a larger proportion of the total population engaged in the "knowledge industry" — teachers, professors, researchers, pupils and students than in agriculture. But the high cost of African universities and the cosmopolitan, international features of academic institutions lend strength to the proposition that teaching and research should be organized where possible on a multinational basis. Such co-operative effort is important both because it provides economics of scale and because it permits larger scale effort than would otherwise be possible and thus increases the liveliness of teaching and research. Co-operative effort should not be confined to any particular discipline, but both because of cost and because of the nature of the subjects it is perhaps particularly important to consider it in the case of the natural sciences and engineering.

There has been talk for some years now about the development of "centres of excellence" in Africa. The idea behind this has been that African countries would band together to establish centres for advanced training and research. Naturally, a programme based on this idea is not going to be easy to establish. On the other hand, there

are developments which show some such centres are already developing in Africa. I have in mind the International Institute for Tropical Agriculture, which is being established with a budget of some US $17 million. I have no doubt that if such an institute lives up to the hopes of its founders, African universities will turn to it voluntarily. In fact, it is expected that the Institute will be one of a series of world agricultural research centres and so scholars from all continents may seek its services and contribute to its research programme. It seems, therefore, that countries which concentrate on developing advanced facilities will provide centres of attraction for other African countries. This may be a much quicker way of developing centres of excellence than the interminable negotiations which show no sign of coming to an end.

Up to now I have not referred to the many types of non-formal education which have been described as the "catch up, keep up and get ahead" process. This, of course, cannot be neglected by any university in Africa. Since the days when a start was made with Extra-Mural and External courses, one wonders whether the use to which the physical plant, equipment and staff of universities can be put during the long vacations has been fully realized. Neither have I touched on the question of academic and professional associations, the publication of learned and scientific journals and the place of specialized research institutes. To discuss these subjects will require at least a separate lecture. Africa's struggle to acquire modern knowledge and skills calls for extra-mural and extra-curricular activities and come unconventional approaches.

African universities face formidable difficulties but they can take confort from the fact that the modern university is a recent development. The names of Napoleon and Wilhelm von Humbolt are associated with the modernization which took place in France and Germany in the 19th century. In the United States we learn that "it was not until the 1900s that anything like a modern university really took shape there." And in the USSR the 1917 revolution marked the beginning of university modernization. The experience of Japan is particularly significant because she adapted a foreign system and used it successfully in very recent times. African countries do not possess

capital resources — they cannot rely on easily assimilable immigrants, but they can take courage from the fact that in the field of higher education, resolution and constructive effort count as much as time and can make up for other ancillary advantages. We do not therefore need to resign ourselves to centuries of painfully slow growth.

The Chairman: I think that we all listened attentively to the brilliant paper presented by Mr. Gardiner. He has shown us the concrete and practical details. He has pointed out that the University should be a basis for development of the society. He has indicated the position of the university in the contemporary period and has emphasized that the development of the university as such could only be for the benefit of Society.

He has declared that if Africa knows backwardness, it is mainly due to lack of excellence.

One thing should be remembered, the high cost of keeping a university prevents some countries from doing so.

Mr. Gardiner drew his conclusion on personal studies he made throughout Africa. The paper of Mr. Gardiner was meant to set the Theme rather than be debated. Comments or questions will however be welcome during the short time at our disposal. The author expressed pleasure to participate.

Aid Representative:

In view of the multipurpose function of the modern university, what role will the University play in the production of middle-level manpower.

Mr. Gardiner:

Universities should not normally be concerned with middle- level manpower and must not reduce their levels to suit middle-level requi-

rements. Training schemes at appropriate levels might solve part of the problem.

Delegate University of Lagos

Stresses the importance of keeping standards at an international level and queries Mr. Gardiner's statement that there are ways of adjusting standards.

Mr. Gardiner

By a more relevant combination of subjects and a more rational judgment of levels. If you give an entrance examination to a student you demand a certain level on subjects as is done everywhere else, without adjusting to your situation. Also pre-professional training should be required for those who fail their examinations.

University of Ghana — Dr. A. A. Kwapong

Queries Mr. Gardiner's opinion of the use of failed students in fields other than those in which they have failed. In Ghana this was done. An exagerated optimism had caused the acceptance of several students in the University and later they failed. It is usual to use such students as teachers. Result, a poor quality of teachers which is one of the basic problems in African education.

Mr. Gardiner

Let us refer to Medicine. Those who have failed could become qualified nurses or workers in other health fields. I am sure those who have received a teachers' training are better than those who come directly from school to teach, as does often happens.

We should determine the entrance conditions. Even those who

have obtained their secondary school certificate should sit for an examination. Those who fail should be advised.

Morocco — Dr. El Fasi

The University of Morocco has a common entrance examination which is open to all. It gives opportunity to the students studying alone. The first time only two candidates out of one hundred succeeded.

But while it democratised education it looked after the standards. Dr. El Fasi suggested that the method could be applied in other places.

Makerere University College — Dr. Y. K. Lule

I wish to ask about the "Centres of Excellence". I do not take kindly to what is being done in Nairobi on the Atomic Centre. In Africa there are only three Centres which have obtained a high level. How can set about this in relation to all subjects? Is Mr. Gardiner referring to new or existing centres?

Mr. Gardiner

If we agree on the principle, we would find a system in Africa for creating a nucleus, then we could, through development, realize excellence.

University of Lovanium — Delegate

Asked Mr. Gardiner on the need for specialization, the multipurpose of the University. Does the latter not go against our principles? Is it wise to have a teacher teaching two subjects?

Mr. Gardiner

African education cannot afford specialization on one subject at undergraduate level. At higher levels, yes.

Sierra Leone — Dr. S. Matturi

Queries Mr. Gardiner's conception that Universities should not train Middle level Manpower.

Mr. Gardiner

The term 'middle level' needs defining and is open to further discussion.

Kenya — Dr. Ndeiito

I could be of Mr. Gardiner's opinion when he argued for the level of the University. I think to be pround of one's past constitutes a danger of foresaking the African realities.

Mr. Gardiner

I thought of this danger myself and I think it is the business of the University to overcome it.

Liberia — Dr. R. L. Weeks

The University need not be either multipurpose or monopurpose. There could be as an example close collaboration between agronomists and engineers. The matter of level, however, is vital. I should not hesitate to say that our Universities should do something to improve the level in certain subjects. I do not say we should reach an inter-

national level but we should guide our Universities to answer efficiently to the need of our countries.

Dr. Dafaalla — The Executive Vice-President

Agrees with Mr. Gardiner's ideas on 'centres of excellence'. It had the feature of converting potential into collective activity in needed areas of knowledge. He sees the importance of a multipurpose degree since the wide responsibilities on our limited number of graduates stationed far apart in the districts place them in situations where they are called upon to tackle diverse matters needing wider training. Hence, the need for multipurpose training becomes evident or even necessary for graduates engaged in service vis-à-vis research. For the latter however, it is important to specialize.

On the question of the use of failed students he cited examples of failed Science Students who succeeded in Economics and of failed Economics Students who succeeded in Arts. What was really required was directing students at the secondary school so that they choose the specialty for which they have acquired aptitude rather than that which is indicated by social prestige.

Delegate from Makerere University College

Brought up the question of Centres of Excellence. The Delegate suggested that the term needed definition and a decision to be made on what was really wanted in order to avoid confusion. A cool assessment of the situation must be made before recommending 'when and where' implementation should be.

O. A. U. Mr. J. Buliro :

I am happy to note that Mr. Gardiner has something encouraging to say about the proposed establishment of Centres of Excellence in Africa by the OAU, about which so much has been said. When

pushing this programme towards its implementation, the OAU has met with opposition from some quarters, including some international organizations. However. the position is now improving, and we are receiving substantial support from non-African quarters. What is important is to define clearly the needs in training and research, which the proposed Centres are to fulfil, then await the reports of the experts on how that is to be done, and where the Centres should be located. It is on the basis of such reports that meaningful discussions on this case could be held. It is hoped that the report on the Centre for Earth Sciences, which is to serve as our pilot scheme, will be ready in time for the next meeting of the Association. In the meantime, it would appear wise not to discuss this case, until that report is presented to this Association for comments and advice.

At this juncture the Chairman declared that further discussion on the Centres of Excellence would be allowed at the Business Session in connection with the Future Programmes of the Association.

He again thanked Mr. Gardiner for his outstanding contribution.